REMARKS

The Office Action dated on November 12, 2004 has been received and its contents carefully considered.

In this Amendment, Applicant has amended claims 1, 6, and 11. The amendments to claims 6 and 11 include revision to correct informalities found by Applicant during review of the application. New claims 12-17 have been added to further protect the invention. Claims 1-17 are now pending in the application, with claims 1, 6, and 12 being the independent claims. Applicant respectfully submits that no new matter has been added and that the originally filed specification, drawings, and claims support the amendments.

Claims 1-11 have been rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,161,175 to Kim et al (Kim) in view of U.S. Patent 6,799,278 to Khatri et al (Khatri). For at least the following reasons, however, Applicant respectfully submits that the independent claims now pending in this application are patentable over these references.

Regarding Applicant's claim 1, the Office Action alleges that Kim discloses all features recited in claim 1 except the south bridge circuit and its powering on the computer system after it has been powered up. However, the Office Action sets forth that Khatri teaches a method of rebooting wherein the south bridge is sent a power management signal, which induces the south bridge to power up the rest of the computer system (column 1, lines 35-42). The Office Action then concludes that it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Kim and Khatri to be able to use the south bridge circuit as a primary power

on device as called for in the Khatri patent. The Office Action, further, alleges that the motivation to combine was the well known and generally accepted usage of the south bridge to be the first component powered-up and then use it to power on the rest of the computer. Applicant respectfully disagrees with these conclusions.

It is well established at law that, for a proper rejection of a claim under 35 U.S.C. §103 as being obvious based upon a combination of references, the cited combination of references must disclose, teach, or suggest, either implicitly or explicitly, all features of the claim at issue.

Applicants' independent claim 1, as amended, recites:

> 1. A method for adjusting the external clock of a central processing unit (CPU), the CPU being employed in a computer system, the computer system at least comprising an external-clock storage device and a south bridge circuit, the method comprising steps of:
>
> setting an external-clock value and storing the external-clock value into the external-clock storage device;
>
> starting an external-clock altering procedure and turning off the computer system;
>
> **starting a wake-up circuit as the computer system is being turned off;**
>
> **after the turning off of the computer system, waking up the south bridge circuit by feeding in a wake-up time a wake-up signal from the wake-up circuit into the south bridge circuit;**
>
> **rebooting the computer system by the south bridge circuit responsive to the wake-up signal**; and
>
> providing the central processing unit with the external clock according to the external-clock value stored in the external-clock storage device. (*emphasis added*)

It is respectfully submitted the cited combination fails to disclose, teach, or even suggest at least the features of:

> **"starting a wake-up circuit as the computer system is being turned off;**

after the turning off of the computer system, waking up the south bridge circuit by feeding in a wake-up time a wake-up signal from the wake-up circuit into the south bridge circuit;

rebooting the computer system by the south bridge circuit responsive to the wake-up signal",

as recited in amended claim 1.

As was noted above, the Office Action takes the position that the primary reference, Kim, discloses all features recited in claim 1 (as originally presented) except the south bridge circuit and its powering on the computer system after it has been powered up. However, Kim only states, in the passage at column 8, lines 40-46 (referred to in the Office Action), that:

> Next, the **BIOS 70 resets the computer system** and initializes the same to the newly-stored operating environment established as in the above. That is, at the moment the system is reset, the value for selecting the external supply operating speed and that for the internal operating multiple, both stored in the battery-backed memory 50, are output to the signal transmitting unit 80 via the input/output port 60.

A passage in the Khatri reference that the Office Action relies on to try to justify combining Khatri with Kim is as follows:

> Typically, the power management signal is transmitted to the south bridge, super I/O, or other computer component operable to control the power state of the computer system. Upon the assertion of the power management signal, the south bridge or super I/O will power up the computer system and record in one of the resistors associated with the south bridge or super I/O the reason for the power up or wake-up event. (column 1, lines 35-42)

Thus, the cited combination of Kim with Khatri, *as a whole*, does not disclose, teach, or even suggest "**starting a wake-up circuit as the computer system is being turned off**"; "**after the turning off of the computer system, waking up the south bridge circuit by feeding in a wake-up time a wake-up signal from the wake-up circuit into**

the south bridge circuit"; and "**rebooting the computer system by the south bridge circuit responsive to the wake-up signal**", as recited in amended claim 1. (*emphasis added)* Further, the Office Action fails to specifically state the language in the Kim or Khatri reference that would motivate one of ordinary skill to combine the Kim and Khatri references in the way suggested by the Office Action and to further modify the cited combination in order to arrive at the claimed invention, as recited in amended claim 1. Therefore, Applicant respectfully submits that claim 1 is patentable over the Kim reference in view of the Khatri reference for at least the reason that the cited combination fails to teach, or even suggest all features of amended claim 1.

It is also respectfully submitted that claims 2-5 are patentable over the Kim reference in view of the Khatri reference for at least the reason that these claims depend from amended claim 1. It is respectfully submitted that claims 1-5 are allowable and thus the rejection of claims 1-5 should be withdrawn.

Regarding Applicant's independent claim 6, as amended, the Office Action alleges that Kim discloses a circuit capable of adjusting the external clock of a CPU in a computer system in accordance with the claim, except for a system wherein explicit mention is made to the south bridge circuit and its powering on the computer system after it has been powered up. The Office Action, however, ends the argument in support of the rejection by alleging that Khatri teaches a circuit comprising: a south bridge circuit for starting an external-clock altering procedure, turning off and turning on the computer system (column 1, lines 35-41), and a wake-up circuit coupled to the south bridge circuit for waking up the

south bridge in a wake-up time after turning off the computer system (column 1, lines 35-41). Applicant respectfully traverses the rejection.

First, the Office Action alleges that the Khatri reference teaches the features that the Kim reference failed to disclose. Applicant respectfully disagrees with this allegation. Specifically, the relevant passage identified in the Office Action only states that:

> Typically, the power management signal is transmitted to the south bridge, super I/O, or other computer component operable to control the power state of the computer system. Upon the assertion of the power management signal, the south bridge or super I/O will power up the computer system and record in one of the registers associated with the south bridge or super I/O the reason for the power up or wake-up event. (column 1, lines 35-42)

From this passage, an ordinarily skilled person would not find any teaching about **circuitry** that includes:

> **a south bridge circuit for starting an external-clock altering procedure, turning off and turning on the computer system**; and
> **a wake-up circuit coupled to the south bridge circuit for waking up the south bridge circuit in a wake-up time after the turning off of the computer system**;

as recited in amended claim 6. Thus, it is respectfully submitted that Khatri does not teach the wake-up circuit and south bridge circuit recited in Applicant's claim 6, as amended.

In addition, Applicant respectfully submits that the Office Action fails to establish a *prima facie case of obviousness* with respect to Applicant's independent claim 6. It is noted that the reasoning of the rejection with respect to claim 6 on page 4 of the Office Action ended with the above discussed allegation.

According to M.P.E.P §2142 "Legal Concept of Prima Facie Obviousness":

> The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.
>
> * * *
>
> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143 - § 2143.03 for decisions pertinent to each of these criteria.

The Office Action clearly does not provide any factual evidence and support for its rejection, to fulfill the legal requirements for establishing a prima facie case of obviousness. Applicant respectfully requests that any further Office Action should do so and that such Office Action, if issued, should be made non-Final.

Since the requirements for support of a prima facie case of obviousness with respect to claim 6 have not been met, the rejection should be withdrawn. The rejection of dependent claims 7 to 11 should also be withdrawn.

New independent claim 12 recites a sough bridge circuit, an external-clock storage device, a wake-up circuit, and a clock generator. Claim 12 then concludes by specifying,

> wherein when the external clock of the CPU is to be adjusted, the wake-up circuit starts as the computer system is being turned off and the wake-up circuit generates a wake-up signal to wake up the south bridge circuit in the wake-up time after ht turning off of the computer system, and

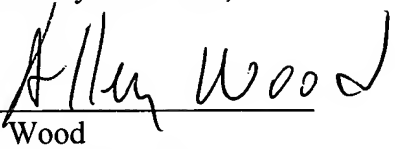
wherein the clock generator provides the central processing unit with the external clock according to the external-clock value stored in the external clock storage device after the south bridge circuit is waken up through the wake-up circuit.

For reasons along the lines already discussed, it is respectfully submitted that the Kim and Khatri references would not have led an ordinarily skilled person to an apparatus with this combination of features. New claims 13-17 depend from claim 12 and are thus allowable along with claim 12.

Conclusion

For the foregoing reasons, it is respectfully submitted that this application is in condition for allowance. Notice of such allowance and passing of the application to issue, are therefore respectfully requested.

Respectfully submitted,



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